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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO.       |
|--|-------------|----------------------|-------------------------|------------------------|
| 10/613,655   | 07/02/2003  | Masanori Asakura     | 81710.0254              | 7235                   |
| 26021 7590 08/10/2007<br>HOGAN & HARTSON L.L.P.<br>1999 AVENUE OF THE STARS<br>SUITE 1400<br>LOS ANGELES, CA 90067 |             |                      | EXAMINER<br>VO, QUANG N |                        |
|  |             |                      | ART UNIT<br>2625        | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>08/10/2007 | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                               |                                   |  |
|------------------------------|-------------------------------|-----------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/613,655 | Applicant(s)<br>ASAKURA, MASANORI |  |
|                              | Examiner<br>Quang N. Vo       | Art Unit<br>2625                  |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/2/03;7/31/06</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-8, 11-12, 15-18, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (Kato) (US 5,379,347).

With regard to claim 1, Kato discloses an image processing device (e.g., image processing device, column 6, lines 23-24) comprising: an isolated point detecting unit that detects isolated points from image data (column 9, lines 27-35); a counting unit that counts the isolated points detected by the isolated point detecting unit (e.g., isolated points are counted, column 9, lines 27-35);

Kato does not exactly teach an isolated point eliminating unit which eliminates the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less.

Kato discloses the number of the isolated point counted and based on the result of counting (column 9, lines 27-35), and the noise level (isolated points) is compared to

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threshold level, if the noise level (isolated points) is equal or less than given level (threshold), is removed by electrical process (column 9, lines 36-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have recognized Kato is having an isolated point eliminating unit which eliminates the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less, or at least obvious to provide functional part for performing of eliminating the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less.

With regard to claim 2, Kato discloses wherein the threshold value is set at different values according to an image resolution (column 8, line 53 – column 9, line 7).

With regard to claim 5, Kato discloses an image processing device (e.g., image processing device, column 6, lines 23-24) comprising: an isolated point detecting unit that detects isolated points from image data (column 9, lines 27-35); a register to which a threshold value is written (e.g., processor 44, column 6, lines 28-46); a counter that counts the isolated points detected by the isolated point detecting unit (e.g., isolated points are counted, column 9, lines 27-35);

Kato does not exactly teach an isolated point eliminating unit which eliminates the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less.

Kato discloses the number of the isolated point counted and based on the result of counting (column 9, lines 27-35), and the noise level (isolated points) is compared to

threshold level, if the noise level (isolated points) is equal or less than given level (threshold), is removed by electrical process (column 9, lines 36-44).

With regard to claim 6, Kato discloses wherein the threshold value is written into the register according to a image resolution (column 8, line 53 – column 9, line 7).

With regard to claim 7, Kato discloses an image processing device (e.g., image processing device, column 6, lines 23-24) comprising: an isolated point detecting unit that detects isolated points from image data (column 9, lines 27-35); a counting unit that counts the isolated points detected by the isolated point detecting unit (e.g., isolated points are counted, column 9, lines 27-35);

Kato does not exactly teach an isolated point eliminating unit which eliminates the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less.

Kato discloses the number of the isolated point counted and based on the result of counting (column 9, lines 27-35), and the noise level (isolated points) is compared to threshold level, if the noise level (isolated points) is equal or less than given level (threshold), is removed by electrical process (column 9, lines 36-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have recognized Kato to teach an isolated point eliminating unit which eliminates the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less.

With regard to claim 8, Kato discloses wherein the threshold value is set at different values according to an image resolution (column 8, line 53 – column 9, line 7).

With regard to claim 11, Kato discloses an image processing method (e.g., image processing device, column 6, lines 23-24) comprising: an isolated point detecting unit that detects isolated points from image data (column 9, lines 27-35); a counting unit that counts the isolated points detected by the isolated point detecting unit (e.g., isolated points are counted, column 9, lines 27-35);

Kato does not exactly teach an isolated point eliminating unit which eliminates the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less.

Kato discloses the number of the isolated point counted and based on the result of counting (column 9, lines 27-35), and the noise level (isolated points) is compared to threshold level, if the noise level (isolated points) is equal or less than given level (threshold), is removed by electrical process (column 9, lines 36-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have recognized Kato to teach an isolated point eliminating unit which eliminates the isolated points from the image data when a number of the counted isolated points reaches a threshold value or less.

With regard to claim 12, Kato discloses further comprising: determining an image resolution of the image data (column 4, lines 15-21); setting a threshold value according to the image resolution (column 8, line 53 – column 9, line 7); and comparing the number of the counted isolated points and the set threshold value (column 9, lines 27-35).

With regard to claim 15, Kato discloses further comprising means for storing the threshold value (column 4, lines 15-21).

With regard to claim 16, Kato discloses further comprising a register to store the threshold value (column 4, lines 15-21).

With regard to claim 18, Kato discloses wherein the threshold value is stored in the register according to the image resolution (column 8, line 53 – column 9, line 7).

With regard to claim 19, Kato discloses further comprising storing the threshold value (column 8, line 53 – column 9, line 7)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 9, 10, 13, 14, 17, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 5,379,347) as applied to claims 1, 2, 5-8, 11-12, 15-18, 19 above, and further in view of Maruo (US 6,163,619).

With regard to claim 3, Kato differs from claim 3, in that he does not teach the image data is divided into several sections.

Maruo discloses the image data is divided into several section (column 7, lines 13-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato to include the image data is divided into several

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section as taught by Maruo. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato by the teaching of Maruo to improve detecting isolated points.

With regard to claim 4, Maruo discloses wherein the image data is divided into smaller sections as the resolution of the image data becomes higher (column 7, lines 26-53).

With regard to claim 9, Kato differs from claim 9, in that he does not teach the image data is divided into several section.

Maruo discloses the image data is divided into several section (column 7, lines 13-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato to include the image data is divided into several section as taught by Maruo. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato by the teaching of Maruo to improve detecting isolated points.

With regard to claim 10, Kato discloses wherein the threshold value is written into the register according to a image resolution (column 8, line 53 – column 9, line 7).

With regard to claim 13, Kato differs from claim 13, in that he does not teach the image data is divided into several section.

Maruo discloses the image data is divided into several section (column 7, lines 13-25).



Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato to include the image data is divided into several section as taught by Maruo. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato by the teaching of Maruo to improve detecting isolated points.

With regard to claim 14, Maruo discloses further comprising: determining an image resolution of the image data (column 6, lines 5-13detail 7); determining a number of sections to divide the image data according to the image resolution; and dividing the image data into the determined number of sections (column 7, lines 13-25).

With regard to claim 17, Maruo discloses the image data is divided into several section (column 7, lines 13-25).

With regard to claim 20, Kato discloses further comprising storing the threshold value (column 4, lines 15-21).

Claims 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (US 5,379,347) as applied to claims 1, 2, 5-8, 11-12, 15-18, 19 above, and further in view of Namizuka (US 6,934,057).

With regard to claim 5, Kato differs from claim 5, in that he does not explicitly teach a register to which a threshold value is written.

Namizuka discloses a register to which a threshold value is written (column 11, lines 26-29).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato to include a register to which a threshold value is

written as taught by Namizuka. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kato by the teaching of Namizuka to hold threshold value for other processing unit.

With regard to claim 6, Namizuka discloses wherein the threshold value is written into the register according to a image resolution (e.g., the value of the fixed threshold 802 may be changed according to a processing mode and characteristics of the image data, column 11, lines 22-40).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Vo whose telephone number is 5712701121. The examiner can normally be reached on 7:30AM-5:00PM Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Y. Poon can be reached on 5712727440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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*Quang N. Vo*

Quang N. Vo 8/6/07  
Patent Examiner

*K. Y. Poon*

KING Y. POON  
~~PRIMARY~~ EXAMINER

*Supervising Patent*